






Week ending June 6, 2009



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Progress on the pre-trim operation continues on the crew module ground test article primary structure cone weld assembly panel at Michoud Assembly Facility (Photo above).
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The Abort Motor direct strike lightning (DSL) initial testing was completed using a configuration with copper foil external to the thermal protection system. There was no damage experienced due to DSL by the composite fiber motor case. This configuration will be recommended for the Production Abort Motor (to be shown at SSDR). An alternate configuration tested with the copper foil sandwiched between the thermal protection system and the motor case did not pass the DSL test
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The avionics radio frequency closed loop test is complete. The team finished the avionics-on portion of the test and is working on the calculations.
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The parachute assembly system test drogue mortar assembly arrived at Dryden Flight Research Center and is being installed on the vibration test fixture. Testing in the vertical direction is underway.
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Demo swing practice test #4 was conducted with impact velocity of 20 fps and an improved drag chain layout combined with modified arrestment post test procedure. The arrestment time was dramatically reduced to 6 minutes. One or two additional swing tests with a flat plate are planned during month of June to demonstrate the technique and ability to meet the ground test article impact conditions.

The Attitude Control Motor DM-1 pintles and pintle guides completed testing and post test processing shows no anomalies. Controller testing is not complete until DM-1 TRR actions are closed out, load set F addressed, approval of ATP, and power board rework completed.

The launch stand template (Photo below) was shipped from White Sands Missile Range to the ascent abort launch stand manufacturer in California. It will be used for final fit checks prior to launch stand completion in a few months.



Communications and Public Engagement

Lockheed Martin, NASA JSC and other aerospace companies hosted teachers from the Houston area as part of a program designed to provide an inside look at how companies operate and do business to allow teachers to make better connections between the subject their students are studying in class and the real world. Teachers hosted by LM were given the opportunity to meet with a wide range of senior managers with responsibilities for program management, engineering, information systems, finance and contracts and human resources.

The NASA Edge film crew spent two days filming for the upcoming program featuring the Orion crew exploration vehicle and the work in progress that is now under way for design and development of the spacecraft. The program is scheduled to air on NASA TV in June or July.

The Orion team is providing support for a NASA outreach event at Spaceport America -- the nation's first purpose-built commercial spaceport which is based outside Las Cruces, New Mexico. The groundbreaking event will take place at the Spaceport on June 19, preceded by complementary community events on June 18 at New Mexico State University (NMSU). NASA will provide exhibits and staffing to educate and interact with the public and guests. Spaceport America and NMSU are expecting 2,000 people. A full size mock-up of the Orion Launch Abort System Pathfinder will be on display at the community event to educate people about Orion's Pad Abort 1 flight test that will take place at White Sands Missile Range in the fall.